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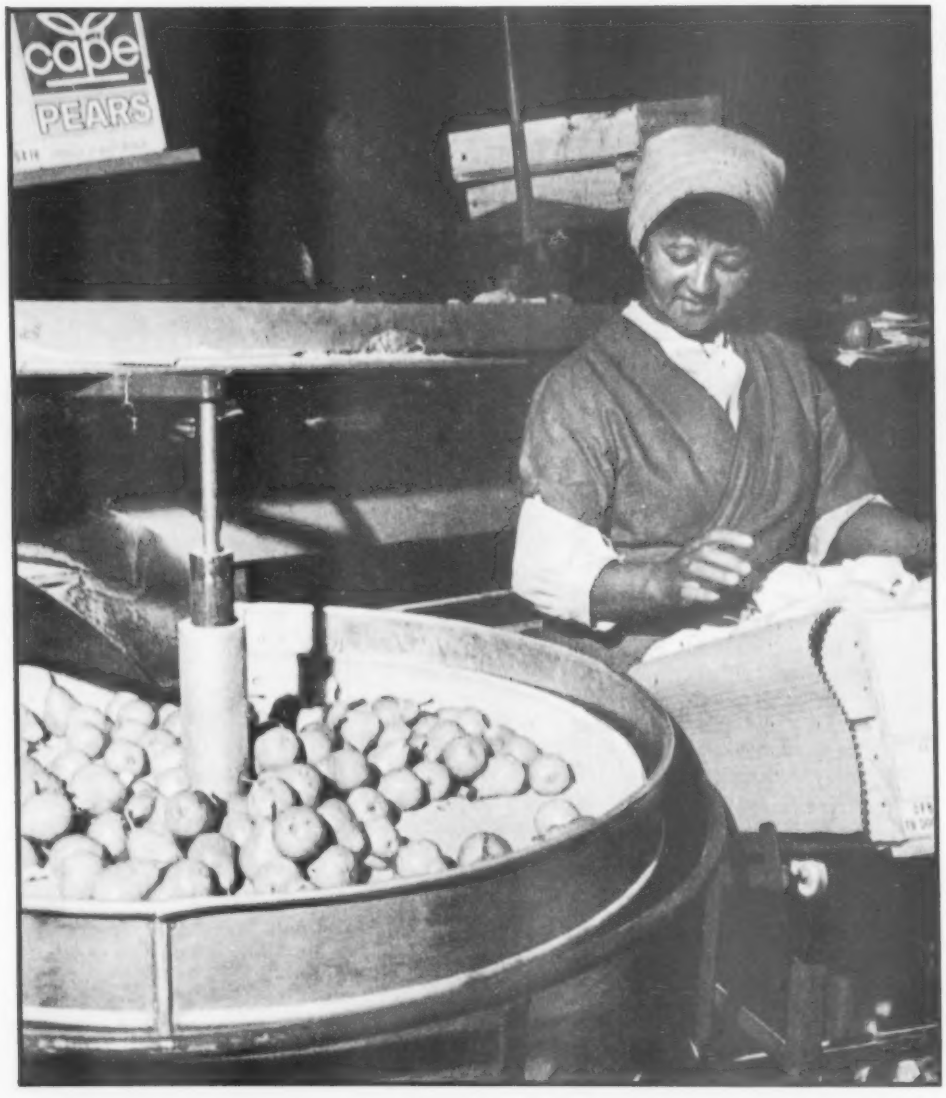

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Oceania's Beef Industry Is Still Depressed, But Dairy Surplus Abating

By Suzanne Early

Recovery for cattle producers in Australia and New Zealand continues to be sluggish following a heavy slaughter triggered by the recent drought. On the brighter side, the dairy surplus in both Oceania countries is subsiding somewhat this year.

The drought-induced heavy cattle slaughter in Australia and New Zealand that peaked late last year is now slowing somewhat in both countries, but this year's prospects for producers are not yet showing signs of improvement in terms of prices and replenishment of herds.

Exports to nontraditional markets are not developing as anticipated and this may cause price recovery to be delayed further.

In the dairy sector, milk output is declining in both countries as a result of poor pasture conditions. In addition, larger exports also have helped bring supplies more in line with demand.

With New Zealand's cattle slaughter expected to diminish in the last half of the 1977/78 (October-September) season, the country's meat production for 1978 is forecast about 7 percent below the calendar 1977 level. Exports also are expected to decline, largely as a result of a sharp reduction in sales to the Soviet Union.

New Zealand is the world's lowest-cost dairy producer and about 90 percent of its milk production goes into manufactured products, of which 80-90 percent are exported. Currently, the country's milk processors are claiming that shortages exist in all of New Zealand's dairy manufactured products.

The drought, more widespread in Australia than in New Zealand, led to record Australian cattle slaughter in late 1977. But, with cattle prices firming by February 1978, the slaughter rate has abated slightly. This year's beef and veal production in Australia—the world's leading exporter of beef—is forecast to be only slightly below the 1977 record, while export prospects depend primarily on sales to nontraditional markets.

The decline in Australia's livestock numbers in recent years has been more pronounced for sheep than for cattle, primarily because of poor weather conditions and a large volume of live sheep exports to the Middle East. Although prices since 1974 have favored sheep, a producer movement in that direction has not matched expectations. The country's dairy production and exports continue to fall—in line with the Government's goal for contraction of the industry.

New Zealand. Following a wet spring, the eastern side of North Island experienced a summer drought through March, resulting in little pasture growth. In the Wairarapa and Hawke Bay areas, slaughter increased as a result of a short fodder situation, and some producers were milking cows only once a day. A large number of heifers showed up in the export slaughter mix, which was unusual because they normally are for domestic consumption.

Since March, the drought has broken and pasture conditions are now generally good, but winter feed reserves have been badly depleted. Weekly slaughter is now lagging behind that of 1977, but the total through April 15 still remains about 4 percent ahead of the year-earlier level.

The average dressed weight of cattle carcasses is running about 7.8 kilograms under that of 1977. This coupled with the expected

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continued decline in slaughter should cause New Zealand's beef and veal production in 1977/78 to drop below last season's output of 559,000 metric tons.

Domestic beef and veal consumption this year is expected to be about 5 percent higher than 1977's record of 186,000 tons, primarily because domestic beef prices, in real terms, are low relative to sheep meat and may even be falling.

After a 3 percent reduction in the 1977 season, a marginal decline of less than 1 percent in cattle numbers to 9.2 million head is seen for 1978, but sheep numbers may rise as much as 2 percent to 59.1 million head because of greater profit expectations. Producer dissatisfaction with beef prices and the brucellosis eradication program, which has led to the quarantine of some 1,200 cattle herds, are two factors responsible for the move by some producers from cattle to sheep. However, one exporter said that the optimum balance between the two operations on many farms has been reached, so cattle herds may not be reduced further.

New Zealand's lamb slaughter in 1978 is expected to be the same or slightly higher than the 1977 total of 25.5 million head. Ewe slaughtering this year is forecast at a more traditional 5.5 million head, down from the high slaughter of 5.75 million head last year, as a result of expected larger flock retentions.

The New Zealand Meat Board is projecting beef and veal exports of 220,000 tons (product weight) in 1978, with 96,000 tons being sold to markets other than the United States. Last year, beef and veal sales to third countries were 134,000 tons out of a total of 255,000 tons.

Officials of the Meat Board hope the USSR will again import beef this year, even though purchases are expected to be below 1977's level of 36,000 tons. But, these officials also feel the Soviets may favor mutton, reflecting the USSR's concern over reduced mutton supplies in Australia.

To date, however, there have been no major sales of New Zealand beef to Eastern Europe—including the Soviet Union—Japan, the Middle East or Mediterranean countries.

New Zealand's low-cost dairy production rests on the basis that no housing or supplementary feed is necessary for dairy herds. Although the average annual milk yield is only about 3,200 kilograms, average butterfat content is 5 percent because of the predominance of Jersey cattle. Milk output in 1978 is expected to decrease 2 percent to 6.3 million tons.

The Dairy Board reported that milk fat processed during June-January 1977/78 was only 2.3 percent below the corresponding 1976 period, but the total 1977/78 (June-May) output is projected to drop 7 percent to 255,000 tons. Last year, the Board made major adjustments in incentives for cheese manufacturers by penalizing above-quota production in order to compensate for the 80,000-ton loss of the U.K. market. However, the Board lifted these restrictions on February 1, 1978, because of increased domestic demand and expanded cheese exports to the United States.

New Zealand also exported large shipments of whole milk powder to Southeast Asia when Australia was unable to supply its traditional markets in that region after fulfilling a 45,000-ton contract with Venezuela.

New Zealand's casein exports to the United States over the last 2 years have been in line with past trends, the Dairy Board reported. Some 20 years ago, New Zealand exported 40,000 tons of casein to the United States for use in making glossy paper. As a result of latex substitutes in the U.S. industrial markets, these sales declined and New Zealand's casein production during 1970-75 was very small. However, edible uses of casein have revitalized production and exports.

Australia. Despite rains in New South Wales and Victoria in recent months, the drought that started in September 1977 continued throughout most of Australia—with two exceptions: The heaviest rainfall ever recorded in Canberra fell in January 1978 and floods hit the Rockhampton area of Queensland. The typical precipitation pattern in Australia is for summer rains (December-March) in Queensland and winter rains (June-September) in West and South Australia.

And despite more rainfall in the last few weeks, large volumes of cattle are still being marketed in Australia, placing downward pressure on market prices. If weather conditions improve, there could be a decline in marketings later in 1978. In any case, a clear trend will not be established until June-July is the period of heaviest cattle slaughter.

On March 1, cattle numbers were estimated at 29.5 million head, down nearly 4 million from the record 1976 inventory of 33.4 million head. The major decline occurred in New South Wales and Victoria while cattle numbers in Queensland—the major beef exporting region—actually increased 2 percent from 1976 to 1977. Australian officials estimated that slaughter would have to

". . . despite more rainfall in the last few weeks, large volumes of cattle are still being marketed in Australia, placing downward pressure on market prices. If weather conditions improve, there could be a decline in marketings later in 1978."

diminish by 2 million head to hold cattle numbers at 29.5 million in 1979. As this is not likely, a further decrease in numbers is forecast for this year.

Sheep numbers have plummeted 15 percent since 1975 to the current estimate of 130 million head. The larger decrease in sheep numbers, compared with cattle over the past 2 years, stemmed mainly from poor weather during lambing and large live sheep exports to the Middle East.

Although there is a price incentive favoring sheep there has not been a strong movement in that direction. Many sheep producers got into the cattle business in 1971 just as cattle prices began to climb. Since 1974, however, these prices have been in a slide and many producers have left the cattle industry.

The Australian Bureau of Agricultural Economics estimates that of the country's 49,000 specialized beef producers—those having 75 percent or more of their resources devoted to beef production—about 35 percent probably will have negative net incomes this year. Hardest hit have been purebred breeders and cow-calf operators. While there will be some switching to sheep, cattle producers in general will likely stick to cattle now that the market shows some signs of improvement.

The outlook for beef slaughtered in 1978 will hinge upon weather and export market prospects. If the widespread dry conditions continue, slaughter will increase. On the other hand, if sales to nontraditional markets do not develop, packers will buy fewer cattle, causing more cattle to be held on farms.

Estimates of Australian beef and veal production in 1978 remain at 1.9 million tons, compared with 2.1 million in 1977, while exports are projected at 670,000 tons, product weight, down from 731,000 tons last year.

Sales to the Soviet Union, which had been projected as high as 50,000 tons, have not materialized. In 1977, Australia exported 87,000 tons of beef to the Soviets.

The only bright spot in Australia's export picture this year has been the higher prices for manufacturing grade beef on the U.S. market, but because marketings have continued at high levels and export prospects have not developed as anticipated, there has been little strength in cattle prices.

As of late April, prices for bullocks at Cannon Hill market had fallen 23 percent since early January, and for cows a 2 percent decline was recorded.

The Cattlemen's Union has presented a beef industry stabilization program to the Government featuring two alternatives: Buffer financing and the setting of minimum and maximum prices for livestock at the saleyard and for meat at the wholesale level.

Buffer financing is popular, but is really no different from the income equalization program, already in effect, that includes provisions under which producers can defer tax payments on deposited income until the money is withdrawn, presumably when financial pressures mount.

The proposal for minimum and maximum prices would require some form of supply control, which at present is not allowed under the Australian constitution that prohibits restraints on interstate trade. Nonetheless, in New South Wales, enabling legislation for a referendum on a beef price stabilization program was in the legislature in February.

Australia's dairy production is expected to decline again this year, reducing supplies for the domestic market and for export. About one-fourth of the country's milk output is for fluid use and the rest for manufactured products. Producers are paid on the basis of butterfat content and quantity of milk delivered.

A major structural shift within the industry has occurred with the major dairy surplus areas remaining only in the southeast and Tasmania. For instance, Queensland now imports butter from Victoria as each State has its own dairy board that markets milk and products independently. □

Dutch Cattle Arriving in Peru

Peru has received the first shipment of dairy cattle from the Netherlands under a bilateral technical cooperation agreement, signed March 27, calling for the import of 2,000 Dutch dairy cattle.

The initial shipment consisted of 779 head and the remainder is expected to arrive during October and November. The cattle—8 to 14 months old—will be distributed in the Arequipa, Moquegua, and Tacna areas.

As well, 120 Argentine-bred Holstein heifers arrived in late March and an additional 200 head are scheduled for delivery.

A Commodity Credit Corporation line of credit (GSM-5), totaling $700,000 for the purchase of U.S. dairy breeding cattle, was recently issued for Peru. Despite much more favorable credit terms offered by other supplying countries, the line of credit was announced in hopes of encouraging Peru to import U.S. cattle. □

Egyptian Grain Production Recovering In 1978

Egypt's grain production is expected to rebound this year following a substantial dip last year from 1976's record crops. A decline in area led to the reduced 1977 harvest, but increased plantings of 1978 wheat and corn—Egypt's major grains—should boost total production above 1977's levels. Meanwhile, the country's rice area this year is projected to continue the gradual decline that has characterized the Seventies.

Also in 1978, Egypt will import more short-staple cotton in order to maintain the normal export level of its relatively expensive long-staple cotton, according to a report by John B. Parker, Jr., Foreign Demand and Competition Division; Economics, Statistics, and Cooperatives Service.

Last year, Egyptian grain production fell 10 percent to 6.7 million metric tons from the 1976 high of 7.2 million tons (including 1.5 million tons of milled rice) as area planted in cereals contracted about 8 percent to 1.9 million hectares, with wheat and corn accounting for most of the decline. This year, if average cereal yields remain about the same as those in 1977 and 1976, the increase in planting could push Egypt's 1978 grain harvest to around 7.0 million tons.

Despite crops of these dimensions, Egypt's wheat imports alone run about 4-5 million tons yearly to meet the demand for wheat and

flour of its 40 million people. In fact, Egypt's total farm imports have risen more than fivefold since 1973, making it the top agricultural importer of the developing world and the largest U.S. farm market in the Middle East.

In 1977, Egypt's farm imports stood at $1.8 billion, compared with $1.6 billion in 1976, and included $540 million worth from the United States, compared with $454 million in 1976. That year, nearly half of Egypt's imports of U.S. farm products were covered by the Public Law 480 program.

Earlier Government plans to shift some land from wheat and corn to cotton and vegetables in 1977 failed to materialize, partly because insect damage caused 1977's cotton yields in southern Egypt to drop sharply. Although cotton area increased nearly 13 percent to 598,000 hectares, production of cotton lint slipped almost 2 percent to 389,000 tons—considerably short of the 396,000-ton target.

As a result of this shortfall and rapidly rising domestic cotton usage, Egypt must increase its imports of short-staple cotton to keep exports of long-staple cotton at around 150,000 tons. Domestic cotton use in 1978 could reach 270,000 tons, compared with 256,000 tons in 1977 and 218,000 tons in 1973.

With 1977's cotton yields down, Egypt enlarged wheat plantings last autumn for harvest this spring by about 65,000 hectares to 600,000 hectares. May is the busy harvest month for Egyptian wheat farmers and this year's outturn is currently pegged at 1.85 million tons, above 1977's 1.7 million, but below 1975's record of 2.03 million tons.

Egypt's corn crop this year is also expected to top last year's output, mainly as a result of an area expansion of more than 5 percent to 777,000 hectares. The 1978 harvest is forecast at 2.8 million tons, compared with 2.7 million in 1977 and 1976.

Most of Egyptian rice is grown in the northern Delta and planted area expanded rapidly in the Sixties, but has been trending downward in the Seventies. Although Egyptian farmers reap high yields through improved Asian varieties and increased fertilizer usage, rice output in recent years have been hampered by problems in getting a steady flow of irrigation water. Therefore, rice production in 1978 is expected to decline slightly on the heels of a small drop in 1977 to 2.27 million tons of paddy (equivalent to 1.52 million tons, milled basis). □

China Delaying Soybean Deliveries To Japan

The People's Republic of China (PRC) notified the Japan Miso Association on February 16, 1978, that shipments of soybeans contracted—but not delivered—during November and December 1977 will be delayed.

Trade sources estimate that Japan purchased about 70,000 metric tons of soybeans in Canton and Peking last autumn, and about 50,000 tons were delivered. The Chinese did not explain why contracts for the outstanding 5,000-10,000 tons could not be met. Japanese traders were not optimistic about further purchases from China's 1977 soybean crop during this spring's Canton trade fair. □

Foot-and-Mouth Disease Perils Botswana's Meat Exports to EC

An outbreak of foot-and-mouth disease (FMD) is challenging Botswana's thriving exports of meat and meat products as the European Community (EC) threatens to halt beef imports from that southern African nation.

With a population of 732,000 in mid-1977 and a cattle herd of slightly over 2 million head, Botswana has developed its livestock and meat marketing system and has been successful as one of the few African exporters of beef to Western Europe, according to a report by Lawrence A. Witucki, Foreign Demand and Competition Division; Economics, Statistics, and Cooperatives Service.

Although its mineral exports have been growing rapidly, Botswana's exports of meat and meat products, valued at $48.6 million in 1975, account for more than one-third of the nation's total export earnings. A major prerequisite of this success has been an effective control program on livestock disease. However, those controls were breached last year by the FMD outbreak—the first since 1968—in the northern part of the country.

Continued entry of Botswana meat exports into the relatively high-priced EC market is important as a foreign exchange earner and as income for the country's dominant livestock sector.

While all EC countries are not completely free of foot-and-mouth disease, they are trying to control and eventually eliminate it. The emergence of FMD in Botswana poses a particular threat because it is a strain of the disease not believed to be present in the EC. The Community is progressing toward common health regulations for third-country imports and intra-Community trade in livestock and meat. However, national regulations apply in many areas.

Consequently, restrictions on Botswana beef by EC Member States may not be uniform and this could result in beef from some establishments or areas in Botswana being acceptable in some EC countries, but not in others.

In one area where EC Member States may not be agreement, they have been insisting that, following the last case of FMD, a 1-year quarantine must be enforced before animals from the infected areas can be slaughtered at the export facilities.

The Botswana Meat Commission (BMC) closed the export slaughterhouse in November 1977. Since then, cattle movements and sales have been restricted.

By the end of 1977, the BMC had reported losses in sales of about $6 million from the potential level. In 1976, meat sales—both domestic and foreign—were at a high of about $64 million.

To reduce the chances of FMD cases entering from Rhodesia, a fence, costing more than $2 million, is being built along the Botswana-Rhodesian border to keep cattle separated.

Botswana has been the main beneficiary of the EC beef agreement with African, Caribbean, and Pacific (ACP) countries that allows a 90 percent EC levy reduction on EC-agreed quotas. □

South Africa's Citrus Industry Focuses On Export Markets

By Roy E. McDonald

This is the fourth article in a series examining major citrus producers in the Mediterranean area and South Africa. This week, *Foreign Agriculture* focuses on South Africa where the industry is concentrating on supportive programs, such as research, to boost exports.

The push of South Africa's citrus industry is toward the export market. To help achieve its goal, the industry has been concentrating on supportive programs such as research on preharvest and postharvest diseases, citrus varietal improvement, and budwood certification.

The force behind this export-oriented and research-oriented industry is the South African Citrus Board.

This Board—a Governmental statutory body made up of grower, consumer, processing, and packinghouse representatives—decides policy matters for the entire citrus industry. The South African Citrus Exchange acts as secretary to the Board—performing the Board's work.

The Citrus Board and the Citrus Exchange are charged with the direct marketing of all citrus produced. Financing for the Citrus Exchange is obtained by a levy on each carton of citrus sold. The levy is apportioned, depending on the disposition of the fruit—export, domestic, or processing.

The Citrus Exchange also conducts preharvest and postharvest citrus disease research, which is financed by the growers on a voluntary basis. Because research is not a direct marketing function (the Board may perform only direct marketing functions), the program is voluntarily funded.

Of the 218 packinghouses in South Africa, 65 percent are cooperatives. Growers belonging to a cooperative are paid on a pool-count basis. A flat rate is paid on the count of fruit going to export, domestic, and processing destinations. The amount that any grower will pack for export will range from 10 to 85 percent of his total crop, with 60-70 percent being the average.

The pool price is determined by the Citrus Exchange and is paid to the packinghouses on an individual basis; the cooperative, in turn, pays the individual growers.

The pool price is determined by withdrawing a statistical sample of fruit from every packinghouse lot at the port and sending these samples by mail boat under refrigeration to England. After arrival, the samples are held for 21-28 days, inspected, and a waste percentage calculated.

The percentage is processed by computer to obtain a weighted average for each packinghouse. A discount figure has also been allowed for each variety of fruit. By taking into account the amount of fruit exported, the discount paid, and the weighted average, a pool price is determined for each packinghouse.

To aid in export-quality citrus production, the Citrus Exchange is conducting extensive research on preharvest and postharvest diseases that seriously affect South Africa's citrus crop. Among the most prevalent preharvest diseases are:

- Black spot—infection takes place from October through January, when the fruit is about the size of a golfball, with symptoms usually appearing in January and February. Black spot does not affect internal quality of fruit, but may cause fruit drop. Hot weather makes this disease more prevalent. It occurs on all kinds of citrus, but does not affect grapefruit as seriously because the fruit is harvested earlier, when the weather is cooler.
- Greening disease—has devastated South African citrus for the past 15 years. Affected branches have chlorotic or mottled leaves, and fruit is commonly of poor quality, retaining large areas of green peel until maturity.
- Tristeza—a disease that blocks food-conducting vessels at the bud union.
- Phytophthora—a fungus disease that affects the bark of the trunk.

Postharvest diseases include: Green mold, blue mold, stem-end rot, sour rot, brown rot, and anthracnose.

Although research is being conducted on lessening the incidence of preharvest and post-harvest diseases, there is still much to be learned if export-quality fruit is to be improved.

The Citrus Exchange also is involved in citrus varietal improvement, accomplished through introduction of new varieties, and a budwood certification program.

Research Programs

Currently, these research programs are concentrating on developing a new mid-season variety of orange to fill the gap between early navels and late Valencias. Emphasis on this particular goal is not on breeding, but rather on selection because of the high costs and low returns from the former method. What is being done is relying on or using U.S. breeding programs and a selection program to obtain new cultivars. At present, several trials of easy-peelers show promise, particularly Clementines and Satsumas.

At the end of 1976, there were about 32 nurseries producing commercial quantities of trees in South Africa, with 22 of these centers participating in the Citrus Exchange's budwood certification program.

Citrus production is widespread in South Africa, including the areas of Tzaneen, Nelspruit, Natal, Eastern Cape, Fort Beaufort, Central and Western Trans-

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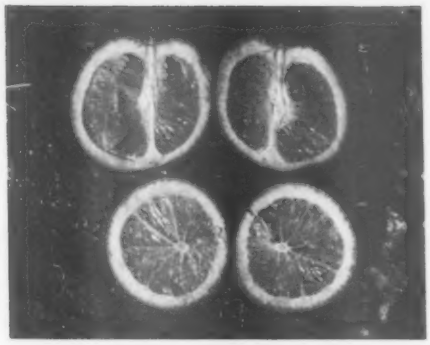

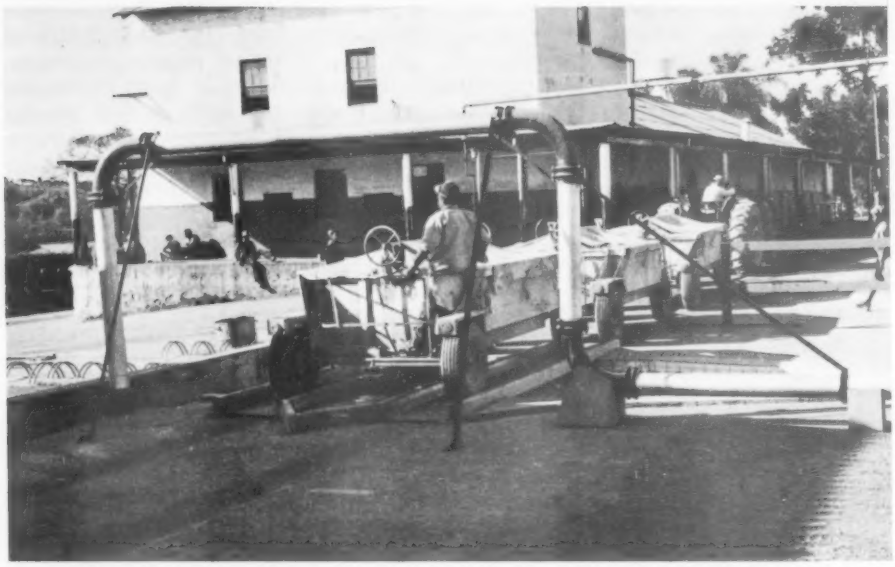

Clockwise from top left: Some South African oranges that have been affected by greening disease—notice the asymmetrical fruit development—which has devastated South African citrus for the past 15 years; citrus cartons loaded in a nonrefrigerated railcar for transportation to port; wet dumping of citrus into chlorinated water; dry-dumping the citrus after it arrives at the packinghouse.

vaal, and Swaziland. The latter area is considered a production area because the South African Citrus Exchange advises the producers and packinghouses, and subsequently markets the fruit.

Fruit clipping is the predominant harvesting method; however, snap picking is becoming more prevalent because of increased labor costs. Although harvesting operations are similar throughout South Africa, packinghouse operations vary slightly. A typical packinghouse operation includes:

- Fruit arrives at the packinghouse and is either dry-dumped or dumped into chlorinated water;
- Hand grading to pick out rough fruit;
- One of three fuigicide treatments is administered: SOPP, benomyl, or thiabendazole;
- The fruit is rinsed in fresh water;
- Fruit is immersed in SOPP;
- Ambient air drying of fruit;
- A water-emulsion or solvent wax is administered;
- Fruit is heated-air dried;
- Presizing of fruit;

- Stamping of fruit;
- Final sizing; and
- Fruit is individually wrapped and placepacked.

Degreening of citrus fruit is not practiced in South Africa, nor is color added to oranges.

Fruit Packing

Currently, most citrus fruit is handwrapped in South Africa to isolate spoiled fruit within a carton and for presentation purposes. Although South Africa is the only country that handwraps most citrus fruit, the practice will probably be terminated in the not-too-distant future because of labor costs. Labor in South Africa is among the cheapest in the world; however, the situation is changing rapidly.

"The South African citrus industry has been concentrating on supportive programs such as research on preharvest and postharvest diseases, budwood certification, and citrus varietal improvement."

Every 1-2 weeks, personnel from the Citrus Exchange inspect and evaluate all packinghouses, observing transport wagons (for points of injury to fruit), packinghouses (for sanitation, equipment, waxing, cartons, and packing operations), and fruit (for appearance, color, sizing, stamping, and quality).

Transportation of citrus fruit to port is done almost exclusively by nonrefrigerated railcars, with average transport time being 4-7 days. Among the major citrus exporting ports (with percentage of crop in parentheses) are: Cape Town (40-45 percent); Durban (25-30 percent); Maputo (16 percent); Port Elizabeth (7 percent); and East London (7 percent).

At present, the Citrus Exchange has no plans to palletize export shipments or to ship citrus in bulk bins. In the latter case, buyers will not pay for the extra cost involved in shipping this way. The extra cost is incurred by the loss in storage space with bulk bins, which raises freight costs.

Thus far, the various programs seem to have been quite effective. Indications point to a good export season in 1977 for the South African citrus industry, which currently is the largest orange and grapefruit exporter to Europe during the Northern Hemisphere's summer months.

Latest reports from the South African Citrus Exchange estimate 1978 foreign exchange earnings from oranges, grapefruit, and lemons about 36 percent greater than those of 1976.

The primary cause of this increase is the record prices paid for oranges in Europe —an average about 50 percent greater than those of 1976. This was the result of several factors:

- A small overlap with Mediterranean fruit at the start of the season;
- An unusually low European apple and soft fruit harvest; and
- Unexpectedly late arrivals of citrus from Brazil and Argentina.

These good financial returns are particularly pleasing to citrus producers in light of the fact that South Africa's total citrus crop in 1977 was the smallest of recent record.

Based on South Africa Citrus Board's estimated figures for the 1977 crop (including Swaziland), South Africa's total citrus output was nearly 563,000 metric tons, down 15 percent from year-earlier levels, and the smallest crop in a decade, owing to poor weather conditions and small fruit size. Citrus exports were placed at over 342,000 tons.

South Africa's 1978 citrus crop currently is estimated at over 717,000 tons —more than 27 percent greater than that of 1977. Exports in 1978 could reach more than 430,000 tons as the Middle East plays an increasingly important role in this situation. Much will depend, however, on the final crop outturn and the conditions in the export market.

Total orange production in 1978 is estimated at nearly 599,000 tons, compared with 460,000 tons in 1977.

Grapefruit output in 1978 tentatively is placed at nearly 89,000 tons, in contrast with some 79,000 tons last year.

Lemon production in South Africa is estimated at over 30,000 tons in 1978. Output in 1977 was slightly over 24,000 tons.

Export Markets

The United Kingdom remained South Africa's largest citrus market in 1977—accounting for about 26 percent of exports. Other large South African citrus importers were France, West Germany, the Benelux countries, and Iran. Restricted import permits in Iran resulted in South African citrus sales to that country being one-third those of the previous season.

For the past 4 years, citrus marketed through export pools ranged from 51 to 66 percent of production. Sales to processors ranged from 15 to 35 percent, depending on the competitive situation in export markets. In 1975, for example, heavy Brazilian supplies of orange juice concentrate forced South Africa's processors to cut the volume of oranges processed by more than one-half below the year-earlier level—from 183,000 tons to 74,000.

Except for the short 1977 crop, South Africa's citrus production has averaged only slightly higher over the past 10 years, although the number of trees has declined. Grapefruit and lemon plantings have risen, and marketings difficulties are anticipated, should increased plantings continue. □

South Africa's Export Efforts Aid Deciduous Fruits, Avocados

By Roy E. McDonald

In addition to programs to aid citrus exports, South Africa also concentrates on the avocado and deciduous fruit export industries.

South Africa exported some 7,000 metric tons of avocados in 1976 (latest year for which data are available). In a normal year, 90 percent of the exports are transported by sea to the United Kingdom, with the balance air-shipped.

Approximately 40 percent of the sea-transported avocados are marketed in the United Kingdom; the remaining 60 percent are trucked to France for sale. The air-freighted avocado crop is sold in other European countries.

Avocados for export are moved to port in nonrefrigerated railcars—as is citrus. Cape Town is the principal port for avocado shipments. There, the fruit is precooled and loaded onto ships. Avocados are carried at 5.5° C in the same vessels that transport citrus.

In recent years, a postharvest disorder has appeared in avocados in European markets. Characterized by a darkening of the flesh shortly after cutting the fruit, it is thought that the problem is Dothiorella rot, which occurs occasionally in California.

South Africa's avocado season runs from February 15 through November 1, with the principal variety being Fuerte (80 percent of production). Other varieties are Edranol (13 percent), Hass (5 percent), and Ryan (2 percent).

Major avocado-producing areas are Nelspruit (30 percent of outturn), Tzaneen (40-50 percent), and Louis Trichard (25 percent).

Avocados are harvested by hand into large lug boxes for transport to the packinghouse, where the fruit is sized and individually wrapped without prior washing or waxing.

Packing is usually 4 kilograms per carton, with three cartons bundled together with cello tape. They are handled in this manner through marketing.

Apples are also a big export concern in South Africa —about 40 percent of production is packed for export.

Granny Smith is the main South African apple, accounting for about 75-80 percent of production and 65 percent of export sales. Golden Delicious and Starking account for the remaining production.

Unlike fruit for domestic consumption, apples for export are not treated with diphenylamine. However, mineral oil wrappers are used as a substitute for diphenylamine for exported apples.

Apples are held under refrigerated storage, but not under controlled atmosphere because 80 percent of the good apples are exported within a relatively short time.

As for citrus, South Africa has research, marketing, and quality control programs for other fruits.

The Fruit and Fruit Technology Research Institute (FFTRI) is Government-funded and headquartered in Stellenbosch. In the Institute, about 250-300 people are involved in postharvest fruit and vegetable research. A certain amount of packaging, precooling, and transportation work is also carried out.

A researcher at the Institute described some of the areas of concentration.

One of the main concerns with South African apples has been bitterpit. Foliar applications of 1 percent of calcium salts control the disorder somewhat. Growers who export must sign an affidavit to the effect that these foliar applications have been made.

Despite the foliar applications, there are still problems with bitterpit. The FFTRI has found that the rate of precooling has an effect on bitterpit development. The more rapid the precooling, the less loss of moisture, and the less bitterpit development.

Research has also been conducted on pear and avocado packing, and the effects of different containers (fiberboard or wooden crates) on market quality.

South Africa's Deciduous Fruit Board's (DFB) main function is to organize the marketing of apples, pears, grapes, peaches, plums, and apricots for export. Except for apples and pears, the DFB also handles the domestic marketing of these fruits.

Financing for the DFB is similar to that of the Citrus Exchange—a budget is drawn up and a levy is placed on each box of fruit exported. The levy placed on fruit for export is higher than that for domestic consumption. Research funding is derived from contingency funds.

The Technical and Research Department is responsible for overall fruit quality, packaging, and grading. Fruit inspection is performed by the South African Department of Agricultural Economics and Marketing inspectors.

The DFB evaluates tests and monitors fruit quality by drawing samples from each shipment arriving at European markets, and is responsible for liaison of research performed by the FFTRI and producers. Packaging research performed by the DFB is the extent of their research activities.

South Africa has a Perishable Products Export Control Board (PPECB) as well. Its functions include:

- Receiving from exporters of perishable products estimates of their intended exports;
- Negotiating and contracting for such shipping space for perishable shipments as may be needed;
- Determining the ships and ports by which any perishable product will be conveyed;
- Precooling such perishables are prescribed by regulations; and
- Listing instructions regarding temperature or conditions under which the product must be handled.

The expenditures of the PPECB are met from the proceeds of a levy imposed on each class of perishable product. Perishable products handled by the PPECB are: Deciduous fruit, citrus fruit, other fruits, dairy products, fish, meat, frozen food, vegetables, and fruit juices. □

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U.S. Farm Exports—Questions and Answers

PART IV

This is the fourth in a series of questions and answers on the competitiveness of U.S. agricultural exports in world markets. These questions and answers were entered into the record of the February 23, 1978, hearing of the Subcommittee on International Finance of the Senate Committee on Banking, Housing, and Urban Affairs.

Q What policies do you recommend to ensure the competitiveness of U.S. agriculture and industry in world markets?

A Based on a worldwide free market system and the principle of comparative advantage, U.S. agriculture is competitive in the world market. Few countries have soil as rich, climate as favorable, and farmers as competent as has the United States.

Furthermore, the United States has one of the best records with regard to controlling inflation and costs of any nation in the world, and the best record of those nations that are agricultural exporters in any meaningful way.

Also, the decline in the foreign exchange value of the U.S. dollar during the 1970's generally has added to U.S. competitiveness. However, the U.S. dollar actually has appreciated against the currencies of some agricultural exporters—Argentina, Mexico, South Africa, Thailand, and, very recently, Canada. But, when changes in the exchange rate and the degree of inflation here and abroad are all considered, the calculations reflect a generally improved competitive position for the United States from 1970 through 1976 as a result of these factors. (Data for all countries are not yet available for 1977.)

Monetary developments in South Africa represent an exception, however. This country has not controlled inflation better than the United States has but, through 1976, it had devalued its currency more than enough to remain competitive.

Unfortunately, many tariff and nontariff barriers negate the free flow of agricultural exports in the world market, and these significantly negate the economic advantages possessed by U.S. farmers. These problems have been with us for a number of years now. They have been analyzed and attempts have been made, and are being made, to reduce them in bilateral negotiations and in various multilateral trade negotiations (MTN's) under the aegis of the General Agreement on Tariffs and Trade (GATT). For example, some progress has been made in increasing Japan's import quotas on beef, oranges, and orange juice.

To offset in a general way the effect of these impediments, it has been necessary to institute a number of export promotion programs. These include: (1) Public Law 480 under which the United States extends concessional dollar credits, (2) the U.S. Export Credit Sales Program (CCC credit), which extends credits for up to 3 years, and (3) a strong market-promotion program in cooperation with private trade associations.

With the inherent competitiveness of U.S. agriculture and these programs—which have in effect offset to some extent the institutional impediments—U.S. farm exports have increased from about $7.3 billion in 1970 to $23.7 billion in 1977. Because of inflation, some of this increase is more apparent than real. In terms of quantity, there has been about a 60 percent increase.

But as 1978 unfolds, U.S. agricultural exports face a relatively new set of problems. In addition to the old impediments, there are: (1) Extremely high world-market prices for petroleum, (2) sluggish growth in some major nations abroad, (3) a great deal of difficulty here and abroad in reducing inflation, (4) shifting exchange rates, and (5) growing pressures for protection against imports.

Underpinning the new pressures for import protection is, of course, the growth in exports of steel, color television sets, textiles, ships, and other manufactured products by Japan and a number of developing nations.

In general, the solutions to the world's old and new economic problems must lead to greater consumption and production and not less consumption and production. New policies and programs must not invite retaliation and more protectionism. Efforts to increase the free flow of trade through international negotiations must be continued. U.S. export-credit and market-development programs are well accepted internationally and must continue to be adjusted as new conditions dictate.

With regard to the new set of world problems, the United States should continue to urge stronger growth by those industrial countries that presently have strong balance of payments positions. With stronger growth, their imports should increase and thereby increase the exports of countries with weak international financial positions.

The growth in exports by the weaker countries should

assist them in two ways. There is the direct effect on domestic economic activity of larger exports, although this effect is not expected to be large in the opinion of some economists. In addition, larger exports will strengthen their balance of payments position and thereby permit them to undertake more expansionary fiscal and monetary policies.

With greater growth in most industrial countries, there would be less pressure within them for protection from imports. Thus, the developing nations could earn more foreign exchange which they, in turn, could use, in part, to purchase U.S. agricultural products. Larger U.S. agricultural exports would strengthen the dollar, and since it is the world's key currency, all nations would benefit. The world's international system of payments cannot be based very long on a weak currency.

A second possible step is to create a much greater public awareness—here and abroad—of the need for flexibility in the allocation of resources. With higher oil prices and growing efficiency in a number of rapidly developing nations, resources—both labor and capital—should be shifted to reflect these new conditions. To maintain too rigidly the world's past economic structure is in effect to: (1) Ignore the higher cost of energy, (2) negate the economic development and export potential that has occurred in the developed nations, and (3) possibly even negate new efficiencies in certain sectors and regions of the United States. To overly preserve the status quo is to dampen or halt world progress.

For the protection of the United States and others, competitive export positions by foreign nations must not be artificially contrived by governmental or monopolistic actions. But where efficiencies are based on sound economic principles, nations should adjust to them—not nullify them.

U.S. agriculture—and the whole world in fact—stands to gain greatly by the recognition of new efficiencies. In this regard, we cannot inform the American farmer that the U.S. Government will not guarantee his income—and the U.S. Government should not—and then permit governmental actions that dampen the demand for U.S. commodities in foreign markets. And limiting the importation of industrial goods may very well be doing exactly that. Japan, with its large foreign exchange reserves and strong currency, can import more without exporting more for a while, but few developing nations can duplicate this act and Japan cannot do it forever.

To the extent the United States limits industrial imports, it has been and would be adjusting to the world's economic problems by reducing industrial production and food consumption abroad, and reducing food production here. The reduction in industrial production abroad probably would be offset mostly by increased production here. However, the price of a given item would likely be higher as a result of this shift, and consumption and production on balance probably would be reduced a little.

However, food consumption abroad and food production here would likely be reduced significantly. Food production in the developing nations would no doubt increase some, but few places in the world have an agriculture as effective as that of the United States.

The economic principle underlying this discussion is not new. Economists years ago developed the principle of comparative advantage. Nor has the U.S. Government failed to recognize the principle. The international trade negotiations are proof of this recognition.

What is new, by and large, is the set of economic problems thrust upon us in this decade and characterized by some economists as the economic storms of the 1970s. In the context of these storms, it is more difficult to sell the principle of comparative advantage—but no less essential. Adherence to this principle sometimes requires change, and it is difficult to change positions during a storm. But we should try to calm the storm and make those changes required by economic conditions not artificially contrived.

With freer world trade and sufficient world economic growth, U.S. agriculture in the short run is competitive. With the present institutional barriers to U.S. agricultural exports, the United States needs to maintain and perhaps strengthen its credit programs and market development efforts.

Given its efficiency and growth in the world's population, U.S. agriculture in the long run is not only viable, it is absolutely essential to the world's well-being. □

Spain Buys More U.S. Cotton

Spain's imports of U.S. cotton reached a new peak in 1977 and may match or surpass this level in 1978.

According to preliminary Spanish data, Spain imported from the United States an estimated 98,500 bales (480 lb net) in calendar 1977, representing almost 30 percent of total cotton imports of 331,400 bales.

With that figure, the United States has established a new record (in terms of percentage of total imports) for this market in the post P.L.-480 period—from calendar 1963. The previous record was set in 1973 when the United States had a 28-percent share of the Spanish market.

In view of its lower-than-expected 1977 crop and of the foreseeable decline in planted acreage for 1978, Spain may well have a small increase in its demand for cotton on the world market in the current marketing year. If U.S. cotton stays competitive, it should be able at least to retain its 1977 position in 1978. □

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Trade Teams—June

U.S. TEAMS OVERSEAS

Date	Organization	Visiting
May 19-June 4	Feed Grain Council Team	United Kingdom, Poland, Yugoslavia, Bulgaria.
May 20-June 7	American Seed Trade Assn. Team	Portugal, West Germany, USSR.

FOREIGN TEAMS IN THE UNITED STATES

Date	Organization	Visiting
May 12-June 5	Government food mission from Sri Lanka	Oregon, Oklahoma, Louisiana, Washington, D.C.
May 24-June 9	Livestock team from Romania	Iowa, Illinois, Washington, D.C.
May 28-June 24	Wheat mission from India	Nebraska, Missouri, Kansas, Louisiana, Oklahoma, Oregon.
May 30-June 21	Wheat-pasta team from Japan	California, Oregon, Idaho, North Dakota, Minnesota, New York, Washington, D.C.
June 9-July 9	Agricultural purchasing mission from Republic of China	California, Washington, Colorado, Minnesota, Ohio, Indiana, Missouri, Texas, Tennessee, Georgia.
June 15-30	Soy oil team from Yugoslavia	Illinois, Missouri, Iowa, Michigan, Minnesota, New York, Washington, D.C.
June 15-July 7	Wheat-flour milling team from Singapore and Thailand	California, Oregon, Washington, Idaho, Colorado, Kansas, Missouri, Washington, D.C.
June 18-30	Tallow purchasing team from Germany	New York, Illinois, Louisiana, Florida, North Carolina, Virginia, Mississippi.
June 17-28	Oilseed processing team from West Germany	Michigan, Illinois, Minnesota, Iowa, Texas, Georgia, South Carolina, Washington, D.C.
June 19-27	Soap industry executives from South Korea	Washington, California, Nevada, Illinois, Pennsylvania, Washington, D.C.

International Meetings—June

Date	Organization and location
In June	United Nations Industrial Organization, fertilizer consultation—Vienna.
3-4	OECD Working Party, dairy and dairy products—Paris.
6-7	OECD Working Party, fruits and vegetables—Paris.
7-9	World Food Council, preparatory meeting—Mexico City.
12-14	World Food Council, ministerial meeting—Mexico City.
12-16	FAO Fisheries Committee—Rome.
12-16	Third UNCTAD preparatory meeting, cotton—Geneva.
15-22	FAO regional conference, Asia & Far East—Kuala Lumpur.
26	Food Aid Committee—London.
26-30	20th International Dairy Congress—Paris.
27-29	Wheat Council meeting—London.
In June/July	U.S./USSR bilateral study, remote sensing of the environment—Moscow.